ABSTRACT OF THE DISCLOSURE

A microprocessor is configured to provide port arbitration in a register file. The microprocessor includes a plurality of functional units configured to collectively operate on a maximum number of operands in a given execution cycle, and a register file providing a number of read ports that is insufficient to provide the maximum number of operands to the plurality of functional units in the given execution cycle. The microprocessor also includes an arbitration logic coupled to allocate the read ports of the register file for use by selected functional units during the given execution cycle.